larger than the brown shrike *Lanius cristatus* and had light slaty-grey upperparts, the underparts being dull white. The black band across the eye to the ear-coverts (typical of most shrikes) was not fully developed, and was slightly deeper-grey than the head and the upperparts. This may be due to the fact that the bird was perhaps an immature. I observed the bird for a few minutes till it flew beyond the hedge.

It was undoubtedly a shrike and resembled closely the grey shrike *Lanius excubitor*. If it was the grey shrike, then this is the first record in Assam. Location was on the banks of the Brahmaputra river, near Matmora (13 km from Dhakuakhana, the Subdivisional Headquarters) in Lakhimpur district. The grey shrike is a bird of comparatively drier environs and is found up to Bihar and West Bengal (HANDBOOK OF THE BIRDS OF INDIA AND PAKISTAN, Ali, S. and Ripley, S.D. 1983). The easternmost recorded locality so far was Kushtia (*c.* 23° 54' N, 89° 07' E), Bangladesh (SYSTEMATIC LIST OF BIRDS, Rashid 1967). The present locality may thus be the easternmost distribution (27° 10' N, 94° 33' E) .

April 5, 1990 ANWARUDDIN CHOUDHURY

15. BREEDING BIOLOGY OF THE MALABAR WOODSHRIKE *TEPHRODORNIS VIRGATUS SYLVICOLA* JERDON AT THEKKADY, KERALA

The present data, collected during an intensive study on the ecology of drongos (Vijayan 1984, Ph.D. thesis, Univ. of Bombay) under the supervision of the late Dr. Salim Ali, provide details on the nesting of this species at Thekkady in the Periyar Tiger Reserve (9° 15' to 9° 40' N and 76° 05' to 77° 25'E) in Kerala during 1981. The study area was of about 150 ha of moist deciduous/ semi-evergreen forest patch with low-lying grasslands on either side.

Nesting season: The nesting season extends from January to April. Six pairs were observed breeding in the study area. Renesting was noticed in all pairs except the one in which the first clutch was successful. Therefore, in all, 12 nests were observed, of which two were in January, nine in February and one in March. The successful pair had fledgelings in March-April.

Nesting tree, height and location: Teak *Tectona grandis* and terminalia *Terminalia paniculata* were used for nesting. Among the 12 nests observed, seven were on the former and five on the latter. Nesting height varied from 8 to 13 m with an average of 10 m (Table 1). Location of the nest was on the top of a horizontal branch, at the base of the main stem or a branch.

Nest, nest building and clutch size: The nest is a shallow cup of spider webs, moss, lichens, pieces of bark, and a few thin fibres as a lining at the bottom. Only the slightly raised rim of the nest could be seen from below as it was well camouflaged by the stem of the tree and the colour of the bird. Nest building took about 8 to 12 days for the first nest and was of a shorter duration while renesting. Of the 12 nests, only in seven was the two egg clutch complete (Table 1).

Incubation and nesting success: Except for two clutches, all the others were predated during the incubation period which was 15 and 16 days in the two cases observed, from which only one was successful in producing two fledgelings. The nestling period was 17 days. One nest was deserted as the first egg was preyed on the day it was laid. Four nests were destroyed even before laying. Hatching success was 26.6% and nesting success 13.3%, the productivity being 0.33 young per pair. The fledgeling period and fledgeling success could not be

TABLE 1
NESTING DETAILS OF THE MALABAR WOODSHRIKE AT THEKKADY DURING 1981

Nesting tree	No of nests	Nesting height in m± SD	Clutch size	Incubation period (days)	Nestling period (days)
Tectona grandis (Teak)	7	10.1 ± 1.8	2	15	—
Terminalia paniculata (Terminalia)	5	9.8 ± 0.8	2	16	17

recorded as the fledgelings were not followed.

This study was supported by the Salim Ali-Loke Wan Tho Research Fellowship from the BNHS. Thanks due to Dr. V.S. Vijayan for his encouragement and also for going through the manuscript.

June 8, 1990 LALITHA VIJAYAN

16. WINTERING RANGE EXTENSION FOR THE RUBYTHROAT *ERITHACUS CALLIOPE*

Place of ringing	Wing (mm)	Bill (mm)	Tarsus (mm)	Tail (mm)	Weight (g)
Tirumala Hills	73	16	28	62	20
Point Calimere	76	19	29	63	23

The rubythroat *Erithacus calliope* is an uncommon winter visitor to the Indian subcontinent, mostly to its north-eastern and eastern parts. In south India they are known to reach only up to Godavari delta in north-eastern Andhra Pradesh where they are fairly common only in Hailakandi and Visakhapatnam (17° 30'N, 83° E) districts (HANDBOOK OF BIRDS OF INDIA AND PAKISTAN, Ali, S. and Ripley, S.D. 1983).

A male rubythroat was trapped and ringed on 3 February 1990 at Point Calimere Wildlife and Bird Sanctuary (10° 18' N; 79° 52'E) in Tamil Nadu. This is the first confirmed record of rubythroat for the state and the southern most record. It is interesting to note that another male rubythroat was ringed at Tirumala Hills (13° 40' N, 79°20 E) in southern Andhra Pradesh on 21 November 1989 and even that was further south to its known wintering range in India. Since the birds were caught in November and February it is quite likely that the species is not just a passage migrant but a sporadic winter visitor to south India as well.

The measurements (mm) and weight (g) of the birds are as shown above.

S. BALACHANDRAN
LIMA ROSALIND
March 29, 1990 S. ALAGAR RAJAN

17. PLUMAGES, FEMALE DIMORPHISM AND POLYMORPHISM OF THE ENDEMIC INDIAN SPECIES *PARUS XANTHOGENYS*

(With a colour plate)

There appears to be some confusion and controversy regarding the plumages of the *Parus xanthogenys* group. A black crest and a longitudinal black band from chin to vent, is usually described as being the adult plumage common to both sexes. Whistler and Kinnear (1931, *JBNHS 35:* 520) examined the series collected by La Personne and reported an interesting problem regarding the plumages of this genus. 15 males agreed with the description, but the three females and an unsexed bird differed in having the black ventral band replaced by dull olive green. They concluded that either the sexes differ or the bird takes a year to assume adult plumage. After examining the Eastern Ghats survey birds they stated that the peninsular Indian race *aplonotus* and the Western Ghats race *travancoreensis* have their sexes different. They described three types of females for the race *travancoreensis.* 1. Black head and black band, 2. Black head and green band and 3. Green head and green band.

Salim Ali (1940, *JBNHS 41:* 86) says the females were dimorphic in *aplonotus.* Phase 1. crown and eye-streak black, ventral stripe dull olive green; Phase 2. crown and eye-streak dull olive green, ventral stripe dull olive green. For *travancoreensis,* he said adult male and female were not alike. Male: crown black, ventral stripe black. Female: crown